

## New Invention Makes Speedy Delivery of Drug to Cells

Improving drug delivery is a hot topic. As anyone who has filled a few prescriptions recently can attest, more conditions are being treated, and treated effectively, by drugs.

But drugs can be toxic—especially those used to treat cancer and HIV-AIDS, or can be poorly absorbed, or dissipate too quickly in the digestive system.

A newly designed family of polymers, recently patented by Chemistry Prof. Emeritus Arthur Watterson and his colleagues, has shown promise to greatly improve drug delivery systems.

The new polymers, which form nanospheres in water, overcome many drug delivery problems.

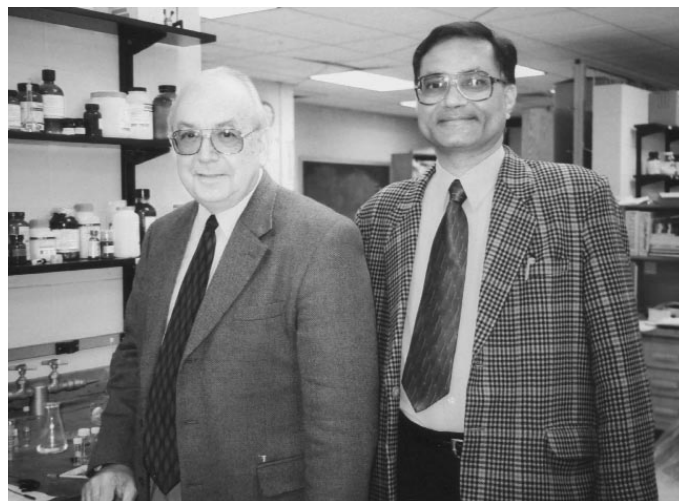
"The surface of the nanospheres is polyethylene glycol, which is environmentally benign in the body and doesn't generate immune reactions," says Watterson, who directs the Insti-

tute for Nano Science and Engineering Technology (INSET). "The polymer itself is amphiphilic and the nanospheres self-assemble around the drug, encapsulating it."

So far, this process has worked with every drug tried: "We haven't found one yet that we can't encapsulate," says Watterson.

The encapsulated system has proven dramatically effective in delivering drugs to cells, both in the lab and in laboratory animals.

"Drug delivery with encapsulation is five times to one thousand



▲ Chemistry Profs. Arthur Watterson, left, and Virinder Parmar are engaged in research on a newly patented family of polymers that show great promise in improved drug delivery and other applications.

times more efficacious than the drug itself," says Watterson. This means the drugs are faster acting and can be delivered in smaller doses.

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## New Center Targets Security

Security, as most of us recognize, is not a simple matter of gates, guns and checkpoints. For its people to feel safe and secure, a society must also support a growing economy and preserve the fundamental values of democracy.

The new Center for Security, Safety and Society (CSS), directed by Senior Research Scientist Hal Salzman, takes a broad approach to issues of security, combining policy considerations with research results, in order to develop better education and training programs for safety workers.

"Security can't be achieved just through technology," says Salzman. "You have to consider policy objectives and worker training."

For example, many positions that could be considered "front-line" security work, such as private security guards and airport workers, have an incredibly high turnover rate—up to 400 percent.

"Imagine trying to train a security force when today's crew of workers is entirely gone every four months," says Salzman. "And in many cases the critical front-line workers responding to a security issue aren't even designated as security workers: They are the cleaning crew or utility workers or building inspectors. We have to think about skill development and career ladders for these people."

The new center is involved in a number of projects.

Working with The New England Consortium (TNEC), the center is developing training for medical examiners, funded by the Office of the Chief Medical Examiner (OCME) for the state. The training teaches awareness of possible chemical, biological and radiological disasters and the emergency response skills that would be needed by the medical examiner's staff.

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## IGS Plunges into Oceanographic Research

One of the great remaining frontiers of science is the ocean. Covering more than 70 percent of the earth's surface, its processes and systems are not fully understood, yet the ocean arguably affects every aspect of life on land.

The new Intercampus Graduate School of Marine Science and Technology (often referred to as IGS) plunges into oceanographic research. The school is building a strong public higher education program in a state with a long maritime tradition and great interest in marine matters.

"I'm a big fan," says Juliette Rooney-Varga, assistant professor of biological sciences and a member of the IGS admissions committee. "The IGS draws on specialized faculty from all the campuses, giving us a better program than any one campus could provide. And it is attracting high caliber graduate students."



▲ Dr. Juliette Rooney-Varga, right, a faculty member of the Intercampus Graduate School of Marine Science and Technology, discusses a summer research project with Yuko Hasegawa, the first UMass Lowell-based graduate student in the program. T

One such grad student is Yuko Hasegawa, UMass Lowell's first student in the program and Rooney-Varga's advisee.

"Each class I have taken has

multiple faculty and I like that very much," says Hasegawa. "Each professor teaches from strength about his or her research." Her first courses have all been through distance learning; each campus maintains a classroom dedicated to interactive distance learning.

The faculty are especially helpful in a program that is new to everyone involved: "We are pioneers," says Hasegawa.

Hasegawa arrived at Lowell by a circuitous route. While attending high school in Japan, she took a year to study in Costa Rica,

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## Take Note

### GSE Awards Day Scheduled for May 3

Dean Donald Pierson invites the campus community to join the Graduate School of Education for the annual Research Presentations and Awards Day on Saturday, May 3, from 9 a.m. to 12:30 p.m. on West Campus. The day's activities will conclude with a luncheon celebration to bid farewell to West Campus and announce future plans, including an interim move to O'Leary Library. For more information or to reserve a seat, contact the dean's office at ext. 4600.

### English Department Provides a Poem a Day 'til the First of May

April is National Poetry Month, and the English Department has devised an inventive way of observing the event. Throughout the month of

April, you can visit the department Web site, [www.uml.edu/Dept/English](http://www.uml.edu/Dept/English), to find a different poem featured on each day.

Selected by members of the department, the poems range from classic to contemporary. Prof. Melissa Pennell selected Robert Frost's "Nothing Gold Can Stay" for April 30, for example.

*Nature's first green is gold,  
Her hardest hue to hold.  
Her early leaf's a flower;  
But only so an hour.  
Then leaf subsides to leaf.  
So Eden sank to grief,  
So dawn goes down to day.  
Nothing gold can stay.*

For information, contact [Melissa\\_Pennell@uml.edu](mailto:Melissa_Pennell@uml.edu).

## Chancellor Updates Faculty/Staff on Budget

An anticipated 15 percent budget cut for FY04 at the Lowell campus will result in the delay of some projects and the reduction of many campus budgets, but will not result in layoffs, Chancellor William T. Hogan told faculty and staff at talks on both North and South Campuses on Tuesday, April 1.

While final budget figures will not be known until at least June, after the House and Senate tackle next year's budget, the UMass system is preparing for about 15 percent in cuts next year, based on the governor's proposal, released last month.

When the recently established student fee increase is factored in, the Lowell campus will face a \$6 million reduced budget next year. The Chancellor will handle that reduction by delaying three large projects: the construction of a parking garage, the implementation of an energy conservation program, and the purchase of a large block of PCs. Several other, smaller, projects will be delayed.

In addition, the payroll will be reduced by about another 24

positions, but through attrition. Trimming back the campus payroll was accomplished during the 1990s, when the Lowell campus undertook an ambitious realign/redesign/reallocation process. During this rigorous project, the campus streamlined academic programs and administrative functions to be more cost effective and more student-friendly. As a result, there are 160 fewer state-paid, full-time people on the payroll than there were in 1993.

At present, the Lowell campus has one full-time faculty member for every 19 full-time equivalent students and one full-time staff member for every 16 full-time equivalent students. Compared with other universities, this is a "lean" level of personnel, according to the Chancellor. He noted that the budget cuts he outlined would solve the short-term fiscal problem facing the campus, but cannot be a long-term solution if the campus is to continue providing high quality service to its students and to the Commonwealth.

## Spotlight Shone on Humanities, Social Sciences in a Democracy



◀ Patrick Brantlinger, the Rudy Professor of English at Indiana University, presented the keynote address at a recent one-day symposium, "Literature, Communication, and Democracy," held at UMass Lowell. His presentation outlined the challenge of instruction in the humanities in the information age. This symposium addressed the political character of the humanities and the social sciences in the present "time of crisis." It was sponsored by the Department of English and the Center for Diversity and Pluralism.

## Swedish Study Looks at Worker Health



◀ Prof. Laura Punnett, of work environment and the Center for Women and Work, left, hosted a seminar featuring a talk by Dr. Annika Harenstam of the Swedish National Institute for Working Life. Harenstam described a massive research project in Sweden that employed a unique holistic approach to examining conditions that are important for worker health. Co-sponsors of the seminar included the Work Environment Department, the Kerr Institute, the PHASE project, and the Center for Women and Work.

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## WEB UPDATE

### View *The Shuttle*, Magazine Online, Freshman Programs Has New Look

Did you know *The Shuttle* and the *Alumni Magazine* are both available online? You can find current and back issues on UML Today ([intranet.uml.edu](http://intranet.uml.edu)) in the Quick Links section on the left side of the Web page. Or you can see the publications, as well as all the current news stories about the University, by visiting [www.uml.edu/umlmainpage/umlnews/](http://www.uml.edu/umlmainpage/umlnews/).

Freshman Programs is the latest site to be redesigned. Featuring a clean look and new navigation bar, the Web site describes the freshman programs and services, provides contact information and the freshman newsletter. Ferney Lopez designed the site. Visit [www.uml.edu/freshmanprograms](http://www.uml.edu/freshmanprograms).

## War Goes Round in Circles



◀ The Rev. Imogene Stulken, right, of Campus Ministries, and Prof. Dan Egan, sociology, hosted a Study Circle discussion on the war in Iraq as part of the University's Eighth Annual Day Without Violence activities. A study circle provides a framework that encourages a democratic and open sharing of divergent opinions. The event was sponsored by the Peace and Conflict Studies Institute.



## Study Shows Economic/Ecological Value of Lowell's Black Brook

**B**lack Brook is an unassuming stream that originates in Chelmsford, meanders through a section of Lowell and eventually flows into the Merrimack River.

Known as the Black Brook watershed, it covers about 3.4 square miles. Like wetlands everywhere, its benefits are generally unknown or ignored by those who live and work around it.

But Prof. Supriya Lahiri of the Economics Department would tell you that Black Brook's total economic value to the community "over an infinite time horizon" is \$160 million. And Prof. Arnold O'Brien of the Environmental Earth and Atmospheric Sciences Department would describe its ecological benefits — including flood control and the filtering of toxins in the water supply.

A system-wide distance learning honors course was established at UMass Amherst in 1998 to study environmental problems throughout the state. Faculty from each of the system campuses gave lectures, and students conducted research on various issues. The lectures and research reports were videotaped and distributed to each campus.

That's when Lahiri, O'Brien and a group of UMass Lowell students began their research on the Black Brook watershed.

O'Brien says that, in addition to the Merrimack River, Lowell has two other important "corridors" running through it—the Concord River and Black Brook. "Our project," he says, "was to see if we could come up with a scheme to evaluate the environmental and economic potential of Black Brook."

A report issued later by Lahiri and O'Brien says that "not knowing the value of a wetland may cause policy-makers to assume it has no value. If this wetland is

subsequently lost through development, natural functions provided by the wetland may not be recoverable or may need to be provided by expensive engineering works.

"Engineered works have the additional disadvantage of needing maintenance and repair, which will add future costs to replacement schemes."

A core group of five students conducted the research to determine both the ecological and economical value of Black Brook.

In the ecological portion, the students videotaped the wetland and evaluated it through a process that rated its functions in terms of social significance, effectiveness and opportunity to perform a number of functions. The functions include such things as flood control, the filtration of pollutants, support of wildlife and availability for recreational purposes.

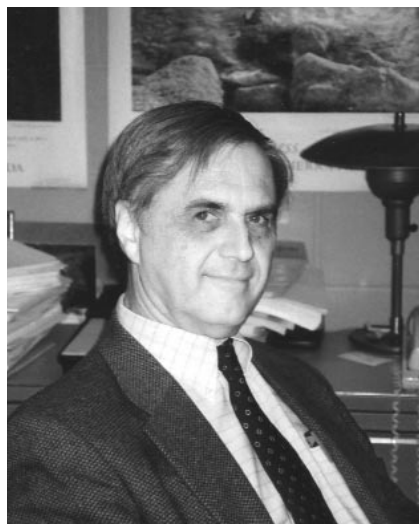
To determine the economic value, the students surveyed 150 area residents. After explaining the function and benefits of the wetland, they asked the respondents what they would be willing to pay to maintain the benefits.

Based on the results of the survey, Lahiri says, the total economic evaluation of the Black Brook system was about \$3.2 million a year or, over an "infinite time horizon," \$160 million.

Their findings were presented in Boston last March at the 28th annual conference of the Eastern Economic Association.

"Now," says Lahiri, "we need to disseminate this knowledge to the people in Lowell. If they knew the value of the watershed, maybe they would not allow commercial development to occur. We'd like the people to know that they have something valuable and that we don't want another parking lot there."

—JMcD



▲ Prof. Arnold O'Brien



▲ Prof. Supriya Lahiri

## Forrant Analyzes Mass. Economy at Parker Lectures

**T**he figures are not encouraging, according to Assoc. Prof. Robert Forrant, an historian in the Department of Regional Economic and Social Development. Not only did the Lowell metropolitan region, which includes the Lawrence and Nashua, N.H., areas, post the fourth highest percentage increase in unemployment in the U.S. last year, but our region is also losing young people fresh out of college at a worrisome rate.

The Lowell area's employment rate sank 4.1 percent (5,200 jobs lost) in 2002; other places may have lost more total jobs, but the percentage of decrease was lower. Only San Jose, Calif., Tulsa, Okla., and Flint, Mich., fared worse than Lowell, says the U. S. Labor Department in its annual employment report.

For an area that historically has led the nation in technological development, from textile manufacturing to computers, relying on a base of highly skilled workers, the leaking talent pool is a major concern. Workforce reductions in technology and manufacturing sectors, for the most part, accounted for the steep drop in employment.

"We're at a crossroads," says Forrant. "There are serious structural problems. If we keep losing people between 18 and 34 years old, where is the skill base going to come from?"

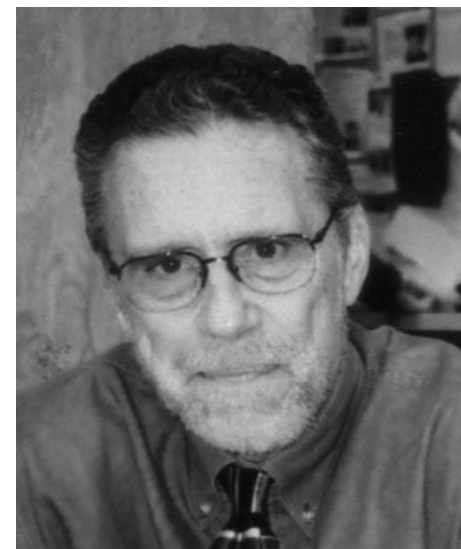
The good news is that our immediate region has an interesting mix of educational institutions that are preparing students for high skill jobs, says Forrant. "We have to think about how we can best use UMass Lowell and Middlesex Community College. This is not the time to limit access to public higher education. And we need to look at ways to reuse old industrial sites and tap into the creativity and energy in the immigrant population that has helped revitalize Lowell's economy."

Forrant discussed these and other realities during a talk at Lowell's Pollard Memorial Library on March 29, a program of the Moses Greeley Parker Lectures series. He reviewed the state's recent economic history with a particular focus on the northeast region, addressing many topics, including the job market for laid-off high-tech workers.

"Some 5,000 out-of-work high-tech workers, 70 percent from Massachusetts, have responded to a Web site survey," said Forrant, "which revealed that 40 percent were out of work more than 12 months, 70 percent had at least a B.A. degree, 54 percent applied for at least 50 jobs, and of these respondents just 20 percent received one or more interviews—31 percent got no responses at all."

He also described the difficulties faced by young people just starting their search or seeking summer work and the current slump's impact on socioeconomic equality, as well as innovations that could help stimulate industries and jobs.

—PM



▲ Assoc. Prof. Robert Forrant of the Department of Regional Economic and Social Development

## Commencement Information Available Online

**W**hat's a DIG form? Where can I get a cap and gown? What time is commencement? All of these questions and more are answered on the Commencement Web site at [www.uml.edu/commencement](http://www.uml.edu/commencement). Graduation requirements, a list of commencement events and a schedule for commencement day, June 1, are posted online. The Web site also includes maps of the Tsongas Arena and the diploma distribution. Commencement information can also be downloaded from the site.



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## New Invention Makes Speedy Delivery of Drug to Cells

Also, the nanospheres pass easily through the skin. Experiments have shown anti-inflammatory drugs reach their target quickly and might be used to treat inflammations such as tendonitis, arthritic joints, carpal tunnel and bursitis by topical application. Even empty nanospheres have shown anti-inflammatory properties.

Cancer drugs are fairly toxic and many cannot be dissolved in water, so encapsulating them in the water-soluble nanospheres makes them easier to administer. Someday, instead of a large, difficult-to-tolerate dose of chemotherapy, patients might wear a patch that delivers a time-released, smaller and more effective dose.

Commercial production of the polymers is the next step, and Watterson is looking for industrial partners to help scale up to that level. A proven volume of production is necessary before proceeding to clinical trials in humans.

As a chemist, Watterson finds himself on a steep learning curve about medical and life sciences applications.

"Collaborations have been and will be vital to this project," he says.

Collaborators include Robert Nicolosi, professor of health and clinical sciences, who has directed the animal trials; Virinder Parmar, visiting professor of chemistry, who has

developed the enzymatic synthesis of the polymers; Thomas Shea, professor of biological sciences, who is developing an application for treating neuroblastomas; and researchers with the Center for Advanced Materials.

As a chemist, Watterson is also excited about the uniqueness and flexibility of the designed polymer.

"Our way to synthesize the polymer is very flexible and we can vary the parameters easily," says Watterson. "With a composition of matter patent, even if others manufacture the polymer, they have to license our technology." All the claims of the patent application were approved, an impressive achievement, and another patent is pending on an improved preparation of the nanospheres and on an enzymatic synthesis of polymers.

The possible applications seem limited only by imagination.

One idea is to formulate polymers with mosquito repellent and attach them directly to the fibers of clothing; in current military use, repellent is sprayed on clothing and can be irritating to skin. Repellents could also be incorporated into house paint.

Again, Watterson is in search of collaborators: "We have an answer in search of a question—many questions," he says.

—SS

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## New Center Targets Security

In a related project, the OCME is funding a conference for funeral directors on May 9, organized by the center. The conference will discuss



▲ Hal Salzman directs the new Center for Security, Safety and Society, which engages in research, policy development and training on security issues. The center takes a broad approach to security that includes job quality, skill development and working conditions of security workers.

how to handle large numbers of fatalities, possibly with issues of contamination, resulting from a mass crisis.

The Security Apprenticeship Program, funded by the U.S. Department of Labor and the Massachusetts Department of Labor, applies apprenticeship methods to the training of private security guards. The center is developing and managing the security aspects of curriculum and partnering with Jewish Vocational Services to extend the training to include teamwork and customer service. Trainees will be paired with on-site mentors.

The center is also involved with the Practical Skills Development Institute for police training, which has provided training to more than 1,100 officers statewide.

—SS

Continued from Page 1

## IGS Plunges into Oceanographic Research

where she became interested in ecology, which became the subject of her undergraduate degree at the University of Wyoming. A desire to study oceanography—"something important to the environment"—led her to Rooney-Varga's lab and to the IGS.

The Marine Science and Technology program was opened officially in the fall semester of 2002, offering both master's and doctorate degrees. Already, about 10 students are enrolled in the four-campus program

(Amherst, Boston, Dartmouth and Lowell), and enrollment is expected to reach 20 next fall.

The participating faculty find the IGS as rewarding as the students.

"The communication among faculty across campuses has increased," says Rooney-Varga. "We are discussing a common subject and working together to guide our students, so it's quite natural."

—SS



## Bioinformatics Program Well Represented at Bio-IT Expo

▲ UMass Lowell was well represented at the Bio-IT World Conference and Expo held last month at the Hynes Convention Center in Boston. The event, which attracted nearly 4,300 life sciences and IT professionals, displayed the newest technology products for the life sciences. Showcasing the University's new bioinformatics program were, from left, doctoral students Hongli Li and Min Yu, Profs. Jie Wang and Georges Grinstein of computer science, staff assistant Andy Morris of computer science, chemistry research associate Gayathri Vasudevan and Prof. Sandy McDonald of chemistry. The University had the only academic booth on display at the expo.

## Physics Workshops Expand Teachers' Knowledge



◀ The Lowell Regional Physics Alliance, directed by physics Profs. Arthur Mittler and David Pullen, organized three workshops for teachers at its daylong March meeting. The workshop "Hands-On Physics at its Best" was presented by David Small, center, from PASCO, a science education company. Joining him are Bruce Ford, left, from Salem High School in New Hampshire; and Paul Mears, from Greater Lowell Technical High School. Other workshops were "Detecting Radiation in our Radioactive World" and "Physics Teaching with Powerpoint."



# Montrie's New Book Unearths the Troubles with Strip Mining

During the 1960s, social activism was a hallmark in the streets of Washington, Boston, San Francisco—and the foothills of Appalachia.

Few might associate the sleepy environs of Leslie County, Ky., with civil disobedience and demonstrations. But according to history Asst. Prof. Chad Montrie's new book, *To Save the Land and the People*, Appalachia saw a surge of grassroots militancy and movement organizing during this period to abolish a common scourge.

"Small farmers, active and retired deep miners, homemaker wives and mothers, as well as some middle-class professionals and business leaders banded together for the specific purpose of fighting the menace of surface coal mining," Montrie writes.



▲ Asst. Prof. Chad Montrie, author of *To Save the Land and the People*, is in his first year of teaching history at UMass Lowell. The book, which was just released, chronicles the rise and resistance to strip mining in Appalachia.

"The best known of the organizations was the Appalachian Group to Save the Land and the People (AGSLP)."

Montrie's book, which takes its name from the AGSLP, traces the history of Appalachian surface or strip mining and the accompanying movement to abolish it. He examines the rise and fall of state and local campaigns to end the practice that employed tactics ranging from civil disobedience to industrial sabotage, including dynamiting equipment and the use of people to block oncoming trucks and bulldozers.

"The book provides a history that has a usable past," Montrie says. "It's an attempt to recover the environmentalism of working people."

In a recent item in *The New Yorker* magazine, it was said that Montrie's book "chronicles resistance to surface mining in Appalachia, as companies left behind gutted communities that were no more than 'rural slums.'"

The book grew out of Montrie's dissertation work at Ohio State University. While there, Montrie spent time working to organize a strike by the United Food and Commercial Workers union in Whitesburg, Ky., his home state. Through his contacts there, he learned of the need for greater examination of the environmental and social crisis that had

been generated through the practice of strip mining in the region.

Deep mining is probably the type most people think of when they picture mining—miners going deep into the earth to extract coal or other natural resources. This type of work can be expensive and requires more workers.

In order to reduce their costs, some companies opted for strip mining in the years that followed World War II. As the name suggests, this type of mining involves stripping away the surface of large tracts of land to expose large caches of coal. It can be advantageous because it exposes untapped mineral resources and requires fewer miners.

Despite these advantages, the negative impacts on the environment, and the communities within it, were enormous. Sometimes, entire mountaintops were blasted away, leaving behind a scarred landscape. It decimated the natural vegetation, and promoted the occurrence of landslides, endangering homes and their inhabitants. It increased water pollution and fouled the soil. Because it



▲ This house in eastern Kentucky was one of the "lucky" ones that escaped a landslide resulting from extensive strip mining in the area. (Courtesy of Mike Clark)

also required fewer workers, it exacerbated chronic unemployment throughout Appalachia, demonstrating the link between the environment and human poverty in the region.

Organizations like the AGSLP were effective through the mid '70s at generating an impetus to abolish strip mining. Montrie cites many factors that contributed to its loss of local and national momentum in the period that followed, however.

The anti-strip mining movement may yet provide lessons for the energy policy debate that is taking place today, says Montrie. While the movement lost its steam, the problem persists.

—RS

# Faculty Demonstrate How to Teach with Technology

The campus's annual Technology Expo had a different focus this year. It showcased the ways in which more than a dozen UMass Lowell professors have integrated technology into their courses.

The expo is sponsored by the Faculty Development/Teaching with Technology Task Force of the Council on Teaching, Learning and Research as Scholarship. Co-chairs of the task force are Prof. Aram Karakashian, physics, and Michael Lucas, coordinator of Distance Learning at the Center for Field Services and Studies. "There are a lot of great ways people are using technology on this campus," said Lucas. "We felt that having experienced faculty members demonstrating real uses of technology was a credible way to show 'newbies' some of the possibilities."

Webboard, a secure web-based communication and file-sharing software package, has been helping James Lyman, a lab manager for the Centers for Learning, "talk" to his staff of student workers. "It makes it so easy for them to get technical help



▲ Physics Prof. Art Mittler is using eGrade Plus in his classes. He is shown here, seated at right, with Richard Pirozzi, online marketing manager for Wiley & Sons, publishers of the software, and, standing from left, adjunct physics Prof. Herb Fox and eGrade Plus sales representative Chris Kelly.

when they're working in the lab," Lyman explained.

Prof. Art Mittler has been using eGrade Plus with the 200 students enrolled in his three introductory physics classes this year. The software, which is published as a

companion to their textbook, generates homework assignments and quizzes. "Students do their work online," Mittler explains. "It makes the workload more manageable for me, of course, but the real advantage is that students get immediate feedback on their work. The students tell me that is really helpful to them."

Other demonstrations included

Prof. Liana Cheney, cultural studies, explaining how to create a video chat for an online course; Asst. Prof. Patrick Scollin, health and clinical laboratory sciences, talking about a Web-based syllabi; and Asst. Prof. Peter Avitabile, mechanical engineering, showing the way in which an online multimedia course supplemented lecture notes.



▲ Bruce Daley, back to camera, a representative of Refworks, demonstrates his company's bibliographic management software to, from left, Gayathri Vasudevan, adjunct professor in chemistry, Carolyn Siccama and Mai Nguyen, both staffers in Continuing Studies, Corporate and Distance Education, and John LeBaron, professor emeritus in the Graduate School of Education.



▲ Math Prof. Steve Pennell demonstrates MATLAB to Mary Beaudry and Joan Leaver of the Teaching Center.



## High School Teams Take the Engineering Challenge at UMass Lowell

**D**esign disc brakes for a new sports car. Investigate a recycling process to reduce landfill volume. Design a life-support system for a planned lunar station.

On March 13, nearly 300 high school students, representing 12 school districts, wrapped their brains around interesting and challenging problems such as these at the 24th annual TEAMS competition, hosted by UMass Lowell's Francis College of Engineering.

Tests of Engineering Aptitude, Mathematics, and Science (TEAMS) is an annual exam that encourages high school students to work cooperatively and think critically. The questions are rigorous and represent college freshman-level engineering

courses. TEAMS is sponsored by the Junior Engineering Technical Society (JETS) a non-profit educational organization that promotes interest in math, science and engineering among high school students.

The event is a one-day, two-part academic competition with awards and recognition possible at the local, state and national levels. Teams consist of four to eight students in grades 9 through 12. Varsity teams are open to any grade level, while junior varsity teams are limited to grades 9 through 11.

Students work in an open-book, open-note, open-discussion format. The exam is given in two parts. Part I consists of a series of objective multiple-choice questions related to various engineering situations. Part II requires students to describe and defend their solutions to open-ended, subjective questions related to problems from Part I.

Part I answers are scored on the competition



▲ UMass Lowell's Francis College of Engineering hosted the teams event, organized by, from left, John Ting, chair of the Civil and Environmental Engineering Department; Krishna Vedula, dean of the college; Penny Donoghue, secretary, and Alfred Donatelli, chair, both of the Chemical Engineering Department.

day and are used to determine local standings. Part II responses are scored at JETS for national ranking.

"The questions show students how engineering touches every part of our lives," says Krishna Vedula, dean of engineering. "Everything, if you look around, needs technology. Engineering is a social profession that improves our quality of life."

The participating high school teams were from Amherst Regional, Arlington, Barnstable, Blackstone-Millville Regional, Chelmsford, Dracut, Littleton, Massabesic Regional (Waterboro, Maine), Newton North, Ralph Mahar Regional, Westford and the Winsor School (Boston).



▲ Arlington High School's team took first place in the local standings of the TEAMS tests of engineering aptitude, followed by the Winsor School (Boston) and Amherst Regional. The essay part of the exam will be graded nationally by the sponsor, the Junior Engineering Technical Society.

## River Hawks Wrap Up Milestone Seasons

**A**nyone who followed River Hawks basketball this past year realized they were watching two very special teams.

The men's team crafted a brilliant season, finishing with a program record of 28 wins.

Behind one of the stingiest defenses in the country, the club captured the Northeast-10 Conference championship and

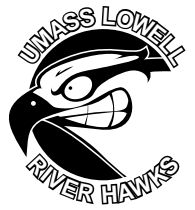
traveled to Lakeland, Fla. to play in the Division II Elite Eight semi finals—their first since 1988.

"This has been an amazing year for us and I'm proud of our guys," says men's Head Coach Ken Barer. "It was a season full of firsts and broken records."

The River Hawk women were equally as memorable.

Before the season began, many pundits picked them as underdogs. But by year's end they'd battled to a 23 - 7 record and earned a trip to the NCAA tournament.

In addition, Head Coach Kathy O'Neil collected her 300th win.



## Skinner Announces Discontinuation of Football Program

**D**irector of Athletics Dana Skinner has announced that the football program at UMass Lowell is being discontinued.

"When significant budget reductions must be made, there are not a lot of options," said Skinner. "Eliminating football was the only choice we could make without totally dismantling a large number of other sports programs."

Both the Athletics Advisory Committee and Skinner recommended the elimination of the program after months of careful consideration. The decision is effective immediately. The Athletic Department will be assisting students who wish to transfer.

Skinner emphasized that the decision is not a reflection on Head Coach Wally Dembowski, who was appointed in April 2001, and says he expects that Dembowski will remain at the University in another capacity.

"Wally is a terrific young coach, and I suspect he'll have a number of other opportunities," said Skinner, "but we'd love to have him stay on with us."

The University will remain part of the Northeast-10 Conference and will continue to strive toward Title IX compliance. The recently renovated Cushing Field will still to be the home of women's field hockey and may now accommodate men's and women's soccer and men's and women's track and field for competition and practices.



## Panel Probes Why Women Persevere

▲ Profs. Doreen Arcus, Nina Coppens and Anne Mulvey, from left, all of psychology, came together with Erica McNamara and Marilyn Masker, right, to discuss "Women Who Persevere Despite Challenges" during last month's Women's Week activities. McNamara is a psychology student and program manager of the Lowell Teen Coalition and co-founder of the Young Women's Project. Masker is a graduate student in psychology and a program director.



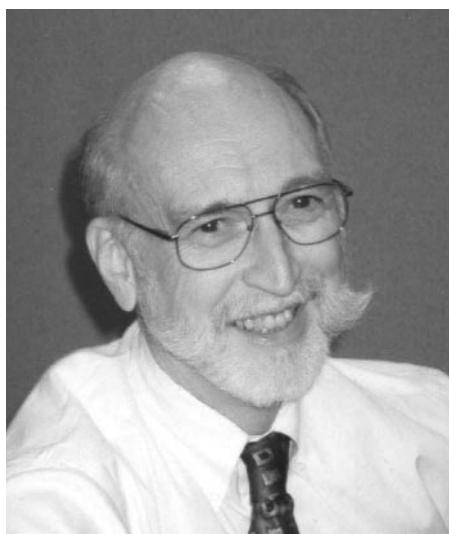
## Biology Department Teams Up to Teach Intro Course

Prof. Jack Mallett left big shoes to fill when he retired — so big, in fact, it took the help of the whole department. Mallett taught the Principles of Biology course to freshman biology majors, as well as to advanced placement students at Lowell High School and Oliver Ames High School in Easton via the Graduate School of Education's Instructional Network. With no one to fill Mallett's position when he retired, Chairman Robert Lynch decided to expand on the technique of team teaching.

Lynch would manage the two-semester course and each department faculty member would teach a section it. Not only would this solve the problem, but it would also give faculty who often teach upperclassmen the opportunity to interact with freshmen. Ten professors, including Dean Robert Tamarin, agreed to teach the course in addition to their regular course loads.

Lynch could not have predicted how successful his experiment would be. The response to the fall semester was overwhelmingly positive from both the college and high school students, as well as the faculty. He believes it keeps the students' adrenaline pumping throughout the year instead of just the first few days of class and helps students feel more connected to the department.

"The students get to know all of us and know our research, which



▲ Chairman Robert Lynch

helps them when it's time to work in an upper level lab," says Lynch. "And students were surprised to have the dean teaching."

Lynch, with the assistance of Professional Technician Karen Thompson, developed a Web site that includes course materials, completed exams and extra credit quizzes. Designed to encourage students to read the chapters before class, the automatically graded online quizzes are each worth one bonus point.

The team teachers for both semesters are Susan Braunhut, David Eberiel, Michael Graves, Garth Hall, Mark Hines, Lynch, Ezequiel Rivera, Juliette Rooney-Varga, Thomas Shea and Robert Tamarin.

## Nick Schott Brings Plastics Program Around the World in 14 Days

Prof. Nick Schott spent his winter break jet setting around the globe conducting training — stopping first in Barcelona before heading on to Singapore and then back home, all in about 14 days. In collaboration with the Division for Continuing Studies, Corporate and Distance Education (CSCDE), Schott provided two-day seminars on plastics production design for injection molding to 40 Hewlett-Packard Company employees.

Despite the rapid time changes, Schott enjoyed both locations. The

HP complex in Barcelona was large and "could have been anywhere in the world." He also spent time networking and making connections, including a visit to Singapore Polytechnic, which often sends students to UMass Lowell for graduate school, to begin a dialogue for future collaborations.

"On-site training is a good way to get our students placed," says Schott. "It gets your name known in the industry."

On the home front, Schott's colleague Prof. Robert Malloy was training an additional 50 HP employees in Oregon and Washington. UMass Lowell has recently been designated as a preferred vendor in plastics training for HP. The two plastics engineering professors have more training already scheduled for this spring, including Dell Computer Corporation in Texas and America Honda Motor Company in Ohio. Joanne Talty, CSCDE corporate project manager, has been arranging all the logistics for the long-distance seminars.

"The collaboration between the Plastics Engineering Department and the Division is so exciting because it is building the University's brand nationally and internationally," says Catherine Kendrick, director of corporate and distance market development, CSCDE. "Prof. Schott and Malloy are doing a wonderful job training a broad spectrum of companies in all parts of the world."



▲ Prof. Nick Schott, plastics engineering, in front of the Singapore skyline during his whirlwind training tour to provide a plastics seminar to employees of Hewlett Packard in Singapore and Spain. He and Prof. Robert Malloy have trained nearly 90 Hewlett Packard employees across the country and around the world over the past six months.

## Student Publication Provides a Unique World View

I still remember the last day in my village. I was standing in front of the door to my parents' house, saying goodbye to everybody there and trying to hide my tears from them. It was the first time in my life that I was making a decision to earn some money for my family."

These could easily be the words of a 19th century "mill girl," leaving her family's New England farm for a better life in one of Lowell's cotton mills. But, according to Elisabeth "Nophie" Satya Dewi, a student in Regional Economic and Social Development (RESO), it is a tale that could be the experience of any young Indonesian woman today. Her account appears in a new publication produced by grad students at the University, *International Women's Issues Seen from Women Graduate Students' Perspective at University of Massachusetts Lowell*.

For more than a year, a group of grad students at UMass Lowell have been meeting to discuss issues of gender and development. They're an international mix, representing Nigeria, Taiwan, Peru, the United States

and Indonesia. They also come from a variety of disciplines including RESO, Community Social Psychology (CSP) and Work Environment.

Through their discussions, group members realized many were writing term papers and thesis proposals on similar issues being faced by women in their home countries.

Satya Dewi says, "All of these experiences, papers and interests are too good to just stay in our files, computers, or even in our memory."

The group decided to collect and publish much of this work to share with the broader community. The work reveals a great picture about women in the world and what might be done to help them.

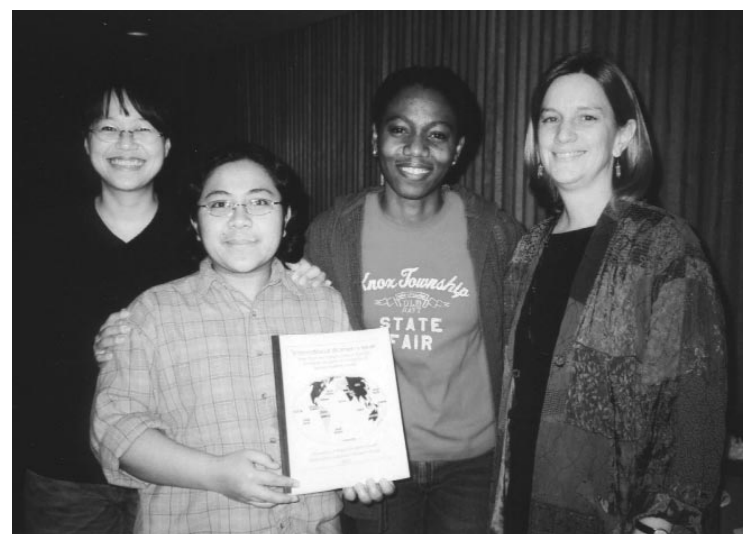
Youngju Seo, a first-year RESO student, was active for many years in the labor and feminist movement in South Korea. She offers a description of the negative impacts of global restructuring on women workers in her country.

She concludes, "In this globalized society, having an international perspective and developing an international solidarity are crucial to over-

coming and improving the situation of women workers."

Others who contributed to the book are Hsiao-Ling Lin, Mana Wambebe and Marriane Pelletier, all of RESO, Sue Harris of CSP and Prof. Maria Brunette of work environment, the only faculty member included.

Throughout the project, the group received support from Prof. Meg Bond of psychology and the Center for Women and Work, Profs. Jean Pyle and Phil Moss of RESO, Prof. Anne Mulvey of psychology and the Center for Diversity and Pluralism, and the UMass Lowell Bookstore Grant



▲ Youngju Seo, Nophie Satya Dewi and Mana Wambebe, from left, all of Regional Economic and Social Development, joined Prof. Meg Bond, of psychology and the Center for Women and Work, at a Women's Week event last month. The students just released a collection of writings, "International Women's Issues," authored by graduate students in Work Environment, Community Social Psychology and RESO programs.

Committee.

For information, contact Nophie Satya Dewi at nophie\_easd@yahoo.com



## Renovation Project to Brighten Cumnock Hall Lobby

**T**he Cumnock Hall lobby project, which began last week, will involve renovation of the floor, walls and doors, and the installation of new lighting.

"We're renovating the lobby to bring indoors the improvements we made last year to the walkways and grounds in front of the building," says Diana Prideaux-Brune, special assistant for economic development. "We're going to brighten up the lobby and make it look more like the administrative center that it is."

In the initial three-week phase of the project, workers will remove the existing dark wall paneling and replace it with an ash wood wainscoting. The walls above the wainscoting will be white plaster.

New diffused lighting fixtures will be installed in the ceiling, with each unit surrounded by trim work to create a pattern effect.

Work on the second phase—the floor and doors—will begin about the first of June.

The floor in front of the auditorium doors will be made of wood to

match the auditorium flooring, while the remaining section of lobby floor will be a granite surface.

Two floor-to-ceiling columns will be installed at the intersection of the granite and wood floor sections to further promote the sense of a visual division between the main section of the lobby and the entrance to the auditorium.

The auditorium doors will be replaced with lighter ones, constructed of ash, which will comply with Americans with Disabilities Act (ADA) standards. The vestibule doors at the entrance of the building will be refinished.

Access through the lobby will be maintained throughout the project, although there may be periods when either the stairs or the elevator will not be available. No power outages or other building-wide disruptions are expected, according to Prideaux-Brune.

Funds for the project were made available last year, she says.

## McIntosh Speaks on Privilege Systems

**C**an you: go shopping alone and be fairly confident that you won't be followed or harassed, go to a talk on national heritage and hear how people of your color made the country what it is, be sure that your children's curricular materials testify to the existence of their race, succeed in a challenging situation without being called a credit to your race, or choose a bandage in "flesh" color and have it more or less match your skin? Then you are probably the beneficiary of unearned white privilege.

These are some of the 46 examples of privilege Dr. Peggy McIntosh identified for in her own life in the 1980s, when she began to research the area of unearned privilege and disadvantage. Now the director of the Wellesley College Center for Research on Women, McIntosh shared her views with an audience of more than 150 people in Mahoney Auditorium on April 7.

The presentation, titled "How Privilege Systems Undermine US Educational Ideals," was sponsored by the Council on Diversity and Pluralism and was supported by more than a dozen organizations and offices across campus. The program included responses by Prof. Meg Bond, psychology; Assoc. Prof. Kristin Esterberg, chair of sociology; and Bobby Tugbiyele, president of the Association of Students of African Origin. The respondents shared personal experi-

ences and scholarly work to corroborate McIntosh's findings.

McIntosh is the founder and co-director of the National S.E.E. D. (Seeking Education Equity and Diversity) Project on Inclusive Curriculum that fosters multi-culturally equitable and gender-fair classroom climates, curricula and teaching methods. McIntosh also directs the Gender, Race, and Inclusive Education Project, which provides workshops on privilege systems, feelings of fraudulence, and diversifying workplaces.

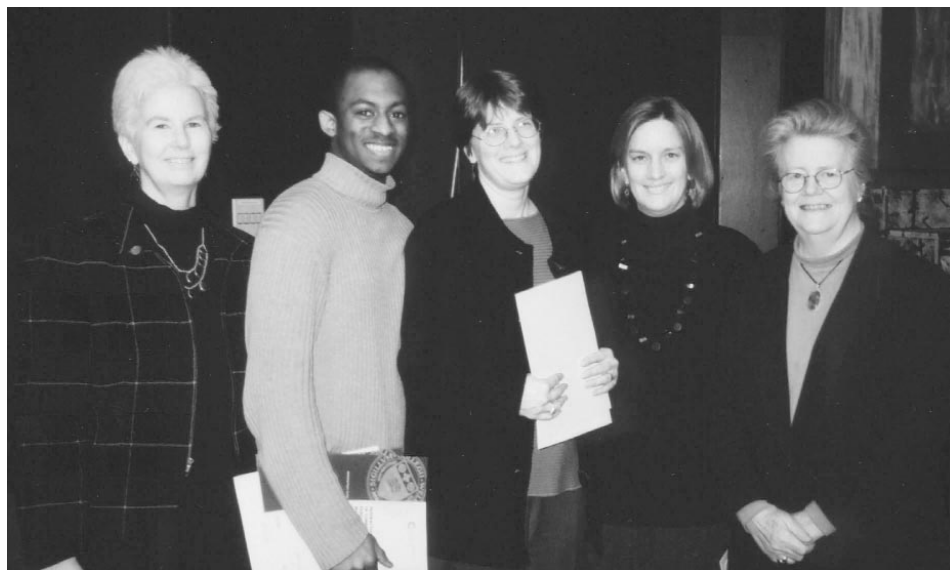
During her presentation, McIntosh recounted her own experience of coming to terms with systems of unearned privilege and disadvantage in the 1980s. "This is not about blame, shame or guilt," she pointed out. Her insights into privilege were published in the 1989 article "White Privilege: Unpacking the Invisible Knapsack," in which she recounted 46 examples of ways she had benefited from white privilege. McIntosh challenged her UMass Lowell audience as she challenged herself: "Having seen that I have unearned white privilege, what will I do to end it?"

She offered her own actions—talking to the police in her town about not harassing black youths, asking suburban grocery managers to stock soul food—as examples of attempts to end unearned disadvantage, and encouraged her audience to do the same.



### Founder of Thermo Electron Speaks at Senior Executive Forum

▲ Dr. George Hatsopoulos, founder and former CEO and chair of Thermo Electron Corporation, said the biggest lesson he's learned over his career is that it's better to be lucky than smart. The teacher, inventor and manager also emphasized the importance of education and training as an engineer and as a manager during the recent Senior Executive Forum sponsored by the colleges of Management and Engineering. Hatsopoulos, an immigrant from Greece and alumnus of MIT, also described the impetus to his developing the "spin-out structure," which allows divisions of the main company to retain partial ownership of both companies—reaping the rewards of both businesses. He likened it to a family—sons and daughters have their own businesses, but they are still part of the family. Before Hatsopoulos, right, began speaking he was welcomed by Deans Krishna Vedula, engineering, and Kathryn Verreault, management.



▲ Participants in the program on unearned privilege and disadvantage included, from left, Dr. Anne Mulvey, co-chair of the Council on Diversity and Pluralism; Bobby Tugbiyele, president of the Association of Students of African Origin; Dr. Kristin Esterberg, associate professor and chair, sociology; Dr. Meg Bond, professor of psychology; and invited speaker Dr. Peggy McIntosh of the Wellesley College Center for Research on Women.



# Research Notes

**Barry, Eugene**  
Konarka Technologies, Inc.  
\$9,000  
Research Projects in  
Collaboration with the University of  
Massachusetts Lowell

**Bobek, Leo and Tries, Mark**  
U.S. Department of Energy, Idaho  
Operations Office  
\$45,018  
Reactor Instrumentation Upgrade

**Bobek, Leo**  
U.S. Department of Energy  
\$6,000  
Nuclear Science Outreach Program

**Cassell, Scott and Geiser, Kenneth**  
Commonwealth of  
Massachusetts  
\$250,000  
Product Stewardship  
Institute

**Daniels, Karen**  
Harvard University  
\$5,100  
HCTAR Project

**Hellstedt, Jon**  
National Youth Sports Corporation  
\$5,622  
Girls Sports Clinics

**Jahngen, Edwin G.E.**  
ESPI (ElectroStatics  
Products, Inc.)  
\$20,220  
Removal of Sulfur from Diesel Fuels

**Kegel, Gunter**  
Assurance Technology Corporation  
\$7,250  
Gamma Radiation Effects on  
Electronic Components

**Levenstein, Charles**  
Dana Farber Institute  
\$58,580  
Organized Labor and Tobacco  
Control

**Mass, William and Salzman, Harold**  
Commonwealth of  
Massachusetts  
\$249,883  
Innovations in Technology and Orga-  
nization Program- ITOP (Program 2)

**Avitabile, Peter**  
\$33,600  
LMS N. America  
Technical Support for Modal Analysis  
Activities

**Avitable, Peter**  
\$5,100  
Spectral Dynamics  
Technical Support for Modal Analysis  
Activities

**Christensen, Charles**  
\$14,400  
Mass Department of Education  
MINT 2002 Follow-Up

**Crumbley, Charles/ Tickner, Joel**  
\$250,000  
V. Kann Rasmussen Foundation  
The Precautionary Principle Initiative:  
Multidisciplinary Research, Technical  
Assistance, and Political Develop-  
ment for Applying the Precautionary  
Principle Environmental Science and  
Policy

**Eisen, Ellen**  
\$75,175  
National Institutes of Health  
Prostate Cancer Morbidity and  
Mental Working Fluids

**Ellenbecker, Michael**  
\$50,000  
Mission Research Corporation  
Integrate and Modify P2GEMS into  
the MRC Web based Software

**Faust, Rudolf**  
\$60,000  
Exxon-Mobil Chemical Company  
Kinetic and Mechanistic Studies of  
Ionization and Initiation in Carboca-  
tionic Polymerization

**Fessia-Richardson, Sandra**  
\$19,904  
Foster-Miller  
Comparison of Absorption Rates of  
Intravenous and Needle Free BchE in  
Rats

**Goodhue, William/ Whitten, James**  
\$8,250  
Galaxy Compound Semiconductors  
Non-Contact Polish/Passivation  
Technology for the Production of Epi-  
Ready GaSb Wafers

**Goodhue, William**  
\$18,147  
Raytheon  
Hydrogen Sensitivity Testing of  
PHEMTs Phase 2

**Hines, Mark**  
\$70,326  
National Science Foundation  
Collaborative Research: Characteri-  
zation of the Wetlands Source of  
Tropospheric Methyl Bromide  
(CH<sub>3</sub>Br) and Methyl Chloride  
(CH<sub>3</sub>Cl)

**Jahngen, Edwin**  
\$63,482  
Foster-Miller  
Optimization of the Lyophilization  
Cycle and Shelf Stability Evaluation

**Levenstein, Charles/ Zelnick, Jennifer**  
\$5,000  
Harvard School of Public Health  
Occupational Health of Health Care  
Workers in the Context of South  
Africa's AIDS Epidemic: a Pilot  
Project on Occupational Health  
Policy for Nurses in Three Health  
Care Settings

**Prasad, Kanti**  
\$10,000  
Skyworks Solutions, Inc.  
Etch Characterization and Correla-  
tion of Defects with Electrical Char-  
acterizations of PHEMT Devices

**Kriebel, David**  
75,175  
National Institutes of Health  
Prostate Cancer Morbidity and  
Mental Working Fluids

**Kegel, Gunter, Montesalvo, Mary**  
\$15,000  
Sherwin-Williams Company  
Irradiation and Decontamination of  
Coating Samples

**Moser, Martin**  
\$15,000  
City of Lowell-Lowell Police  
Department  
Mass Police Leadership Institute

**Nicolosi, Robert**  
\$6,706  
American Emu Association  
Investigation of Soap Stock Fraction  
of Emu Oil

**Quinn, Margaret**  
\$57,832  
Dana Farber Cancer Institute  
(DFCI)  
Physical & Social Hazards: Jobs,  
Race, Gender & Health

**Reinisch, Bodo**  
\$9,949  
U.S. Air Force  
Osan, Korea Travel

**Salzman, Hal**  
\$167,000  
Commonwealth of Massachusetts  
Comprehensive Airside Security  
and Safety Task Force

**Salzman, Hal**  
\$500,000  
North Eastern Massachusetts Law  
Enforcement Council  
Innovations in Technology and  
Organizations Program/Practical  
Skills Development Institute

## Calendar of Events

Continued from Last Page

### Thursday, May 8

**Concert**, Faculty Performance Series,  
Studio Orchestra, Walter Platt, direc-  
tor, 7:30 p.m., Durgin Concert Hall.  
For information, call (978) 934-3850.

### Thursday-Friday, May 8-9

**Performance**, STARTS program,  
"Tiki Tiki Tembo," a musical produc-  
tion for school field trips, grades  
K-3, 9:30 and 11 a.m., Durgin Hall.  
Tickets \$5. For information and  
reservations, call the STARTS hotline  
(978) 934-4452.

### Friday, May 9

**Concert**, Faculty Performance  
Series, Choral Union, featuring  
Dr. Christopher McGahan, director,  
8 p.m., Durgin Concert Hall. For infor-  
mation, call (978) 934-3850.

**Concert**, Student Performance  
Series, featuring Minesh Shah,  
trombone, 7:30 p.m., Fisher Recital  
Hall. For information, call  
(978) 934-3850.

### Saturday, May 10

**Concert**, All-City Youth Wind  
Ensemble, Deb Huber, director,  
7:30 p.m., Durgin Concert Hall.  
For information, call (978) 934-3883.

### Monday, May 12

**Concert**, Faculty Performance  
Series, Brass Ensemble, Joseph Foley,  
director, 7:30 p.m., Durgin Concert  
Hall. For information, call  
(978) 934-3850.

### Sunday, May 18

**Concert**, UML String Project,  
Student Recital, featuring Prof.  
Susan Turcotte-Gavriel, master  
teacher and Dr. Kay George Roberts,  
director, 3 p.m., Durgin Concert Hall.  
For information, call (978) 934-3850.



## Students Interested in Science and Engineering Tour University Labs

**S**ome 40 students from the Rogers School in Lowell, all of whom had expressed an interest in science and engineering, toured a number of laboratories at the University last month.

The tour was organized and conducted by Doug Prime, director of K-12 Educational Outreach. The Rogers School students are taught by Kirsten Perras, who herself is a

student in Prime's evening course, Introduction to Engineering for Teachers.

During the two-and-a-half-hour tour, the youngsters visited the plastics, renewable energy, mechanical engineering and baseball bat laboratories. The objective, says Prime, was to expose the students to different career areas.

University participants in the event included Profs. Stephen Orroth of plastics engineering and Ziyad Salameh of electrical and computer engineering; Glen Bousquet, systems analyst in mechanical engineering; and Pamela Jahngen-Provencal, coordinator of Engineering in Mass Collaborative. Engineering students Dan Hogan and Pat Drane also assisted.



▲ Doug Prime, top left, director of K-12 Educational Outreach, organized and conducted a tour recently for more than 40 Rogers School students who had indicated an interest in science and engineering.



▲ Prof. Stephen Orroth shows a student from the Rogers School how a plastic scraper is made using the injection molding process.

## The Shuttle

The purpose of *The Shuttle* is to disseminate news about and of interest to the faculty and staff of the UMass Lowell community. Our news items come from a variety of sources—much of it directly from individuals or groups who wish to make others aware of their programs, projects or accomplishments.

Following are guidelines for those who would like to submit material for possible publication:

### Stories

Information for stories may be mailed to the Publications Office, Cumnock 6, or e-mailed to Marylou\_Hubbell@uml.edu. Submissions need not be in story form but should include all pertinent information, such as a description of the project or event, time, place, names and titles of participants, etc., and the name and number of a contact person.

### Photographs

Photos (color preferred) may be submitted in the form of prints, or by disk or e-mail. Digital photos must be at least 300 dpi.

For answers to questions regarding the submission of material to *The Shuttle*, call ext. 3223.



## New Lab Opens in Plastics Engineering

▲ Stephen Rocheleau, second from left, prepares to cut the ribbon to the new Rocheleau Blow Molding Lab in the Plastics Engineering Department, which contains equipment donated by Rocheleau Tool and Die Co., Inc., Fitchburg. Rocheleau, president of the company and the grandson of the company founder, is joined by plastics engineering Prof. Stephen Orroth, left, engineering Dean Krishna Vedula, and plastics engineering Prof. Robert Malloy, chair of the department. Blow molding is used to produce plastic bottles for dairy, industrial, medical, container and toy applications.



## Online Learning in Math and Science Explored in GSE Colloquium

▲ More than 60 local teachers participated in the Eighth Annual Colloquium on Research in Math and Science Education sponsored by the Graduate School of Education. Keynote Speaker Dr. Susan Doubler, associate professor of science education at Lesley University and TERC (a mathematics and science education research and development center), discussed her current work developing an online master's degree in science education for K-8 teachers funded by the National Science Foundation. Three other sessions explored online resources for educators, controversial issues associated with block scheduling, and teacher professional development. Gathering before the colloquium are, from left, presenter Dr. David Arias, Andover High School; Doubler; Dean Donald Pierson; presenter Dr. Charles Kaminski, Middlesex Community College; and Dr. Regina Panasuk, colloquium organizer, GSE.



## Note Worthy

**Physics Prof. Robert Giles** has developed a new physics course in data acquisition and analysis techniques using Labview software and hardware from National Instruments. The system allows for rapid information collection from a variety of sensors or controls. Students can study phenomena of interest in physics, as well as product performance, similar to a work environment. Open also to students in engineering and computer science, the course is a technical elective lab course.

**Prof. Caryn Cossé Bell**, history, received a \$5,000 grant from the National Endowment for the Humanities to continue her work preparing an annotated translation of a French-language memoir, *Souvenirs d'Amérique et de France*, written by "une Créole" (Mme. Hélène d'Aquin Allain), first published in 1883. She received support last summer from the University's Healey Grant program to begin her research in France and New Orleans.

The grant was one of 117 NEH Research

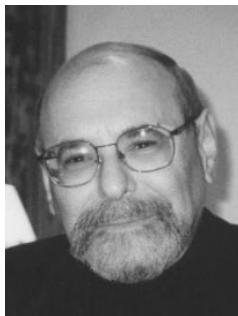


▲ Prof. Caryn Cossé Bell

Summer Stipends awarded nationally, with nine awarded in Massachusetts. UMass Lowell was the only public university to win funding.

A contribution by Political Science **Professor Frederick Lewis**, "The Creature Walks Among Us," was included in a symposium—"The Constitution of the Living Dead: Binding the Present to the Past"—in a recent issue of the journal *The Good Society*.

Lewis's contribution, which argued against attempts to hold Constitutional interpretation to the standard of "original intent," was included among those of scholars from Yale, Princeton and UMass Amherst.



▲ Prof. Frederick Lewis

In April, Lewis is scheduled to present a paper, "Free Speech Puzzles," at the Roundtable on Law and Semiotics in Amherst, while in May he will serve as part of a panel discussion on the issue, "Mobilization and Social Change," at the annual meeting of the New England Political Science Association in Providence.

## Promotions & Appointments

### Promotions

**David Rondeau**, staff assistant in the College of Engineering, from laboratory technician in Mechanical Engineering.

### Appointments

**Dhimiter Bello**, research chemist, Research Foundation, from part-time work while a graduate student.

**Carlo Eracleo**, staff assistant I, payroll grant accountant, from accountant at Webster Industries.

**Kathleen F. Shannon**, staff assistant in Continuing Studies, Corporate and Distance Education, from 03 to 01.

**Donna E. Vieweg**, compliance specialist in Affirmative Action Compliance and Equal Opportunity, from manager of external payroll at Select Appointments NA.

### Obituaries

#### Mary Ann Charette, Staff Assistant in Administrative Computing

**M**ary Ann Charette, a staff assistant in administrative computing, died at Saints Memorial Hospital last month. She had been a University employee for 22 years.

A native of Lowell, she had lived in Dracut for the last nine years.

Donations in her name may be made to the American Lung Association, PO Box 265, Burlington, MA 01803.



#### PSDI Exhibits for Massachusetts Chiefs of Police Association

◀ **Tom Sullivan** from the UMass Lowell Practical Skills Development Institute (PSDI) participated in the 2003 Massachusetts Chiefs of Police Vendors' Conference in Boxborough last month. At the conference, PSDI showcased its course offerings for law enforcement professionals on topics such as reducing the risk of death of persons in custody and issues facing law enforcement in fighting terrorism.



#### Admissions Office Hosts Regional Guidance Counselors

▲ The Office of Enrollment Management and the Office of Undergraduate Admissions hosted dinner for the New England Guidance Counselor Association in March. More than 40 guidance counselors from area high schools attended, including, from left, Kevin MacLaughlin, Greater Lowell Technical School; Dr. Lisa Johnson, assistant vice chancellor for Enrollment Management; Pasqua Leary, Lowell High School; Loretta Papadonis, Woburn High School; Ann Bratton, staff assistant, Office of Enrollment Management; and Tom Walsh, Beverly High School.

#### Worker Photography Exhibit Runs Through June



◀ "Community Clicks: A Photographic Journey of Workers and Youth," which runs through June 27, kicked off April 1 with a celebration of art and entertainment at the Patrick J. Mogan Cultural Center in downtown Lowell. The exhibit of 26 photos, which captures the worlds of area workers and high school students, is the result of the UMass-Lowell-sponsored Worker Photography Project. Shown at the opening are Susan Winning, left, Labor Extension Program coordinator who runs the project, as she admires the work of photographer Moises Baez, right, Greater Lowell Vocational Technical School student. The exhibit also is sponsored by the UMass Lowell Photography Department, Mogan Cultural Center, United Teen Equality Center of Lowell and several unions and organizations.



# Calendar of Events

## Wednesday, April 16

**Performance**, STARTS program, "Tom Chapin in Concert," a musical performance for school field trips, grades K-3, 9:30 and 11 a.m., Durgin Hall. Tickets \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

**Open Meeting Hours**, Opportunity for faculty, staff and students to meet with William T. Hogan, Chancellor. Staff: 2 to 3 p.m.; Students: 3 to 4 p.m.; Faculty: 4 to 5 p.m.; Trustees' Room, Cumnock Hall. For information, call the Chancellor's office (978) 934-2201.

## Thursday, April 17

**6th Annual Research Symposium**, opportunity for graduate and undergraduate students to discuss their work, 11 a.m. to 2 p.m., Cumnock Hall Auditorium. For information, call Pamela Kenyon (978) 934-2938.

**Softball**, vs. CW Post, 3 p.m., River View Field. For information, call (978) 934-HAWK.

**Baseball**, vs. Southern Connecticut, 6 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

**Concert**, Student Performance Series, Graduate Recital, featuring Courtney Fadlin, saxophone, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

## Friday, April 18

**Concert**, Student Performance Series, Graduate Recital, featuring Mark Henderson, guitar, 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

## Saturday, April 19

**Softball**, vs. Pace University, 11:30 a.m., Riverview Field. For information, call (978) 934-HAWK.

## Monday, April 21

**Baseball**, vs. Southern Connecticut, 3:30 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

## Tuesday, April 22

**Baseball**, vs. Dowling College, 6 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

## Wednesday, April 23

**Softball**, vs. Bryant College, 3:30 p.m., River View Field. For information, call (978) 934-HAWK.

**Concert**, Faculty Performance Series, Wind Ensemble Concerto Competition, David Martins, director, 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

## Thursday, April 24

**Presentation**, Dr. Elizabeth Norman, author of *We Band of Angels*, talks about the stories of World War II nurses featured in her book, \$35 per person, includes research poster session and dinner, April 3 registration deadline, 5 p.m. to 9 p.m., Lowell Doubletree Hotel. For information and a registration form, call (978) 934-4431 or e-mail [Jacqueline\\_Dowling@uml.edu](mailto:Jacqueline_Dowling@uml.edu).

**Concert**, Faculty Performance Series, Jazz Rock Big Band, Daniel Lutz, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

## Saturday, April 26

**Baseball**, vs. St. Anselm, noon, LeLacheur Park. For information, call (978) 934-HAWK.

**Concert**, Student Performance Series, Graduate Recital, featuring Jamie Dunphy, guitar 1 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

## Sunday, April 27

**Concert**, Student Performance Series, Junior Recital, featuring Laura Frye, oboe 3 p.m. Fisher Recital Hall, South Campus. For more information, call (978) 934-3850.

## Monday, April 28

**Presentation**, Senior Executive Forum, Joseph Flannery, chairman, president and CEO, Uniroyal Holding, Inc., 1:30 to 2:30 p.m., Kitson 309. For information, call Dean Krishna Vedula's office (978) 934-2571.

**Concert**, Faculty Performance Series, Mixed Chamber Ensemble, David Martins, director, 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

## Wednesday, April 30

**Resume Workshop**, "Make Your Resume Rock and Explore Your Future," career and resume advice from professionals in the fields of law enforcement, human services, education, business, and more, 1 to 5 p.m., Coburn 205. For information, contact the Office of Career Services (978) 934-2355 or visit <http://career.uml.edu>.

**Baseball**, vs. Stonehill College, 6 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

**Concert**, Faculty Performance Series, Jazz Trio, featuring Dr. Stuart Smith, director 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

## Thursday, May 1

**Concert**, Faculty Performance Series, Performance Ensemble, featuring Prof. Robert Keeler, director, 7:30 p.m. Fisher Recital Hall. For information, call (978) 934-3850.

## Friday, May 2

**Performance**, STARTS program, "LUMA," performing arts for school field trips, grades 7 and up, 9:30 and 11 a.m., Durgin Hall. Tickets \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

**Baseball**, vs. Merrimack College, 6 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

**Concert**, Student Performance Series, featuring Brian Nickerson, piano, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

## Saturday, May 3

**Presentation**, Graduate School of Education's annual Research Presentations and Awards Day, 9 a.m. to 12:30 p.m., West Campus. For information or to reserve a seat, call the Dean's Office (978) 934-4600.

**Exhibit Reception**, Senior Thesis Work in Fine Arts and Graphic Design, 2 to 5 p.m., Dugan and University galleries. Exhibit runs through June 11. For information, call (978) 934-3491.

## Sunday, May 4

**Baseball**, vs. Merrimack College, 1 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

**Performance**, Discovery Series, "Symthe and Saucier in Circo Comedia," 2 p.m., Durgin Hall. Best for ages 4 and up. Tickets \$10, group discounts available. For information or tickets, call the Center for the Arts (978) 934-4444.

**Concert**, Faculty Performance Series, Choral Collage, featuring Dr. Christopher McGahan, director, 3 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

**Concert**, Faculty Performance Series, Piano Ensemble, featuring Prof. Thomas Stumpf, director, 7:30 p.m. Fisher Recital Hall. For information, call (978) 934-3850.

## Monday, May 5

**Concert**, Student Performance Series, Graduate Recital, featuring Timothy Peng, piano 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

**Concert**, Faculty Performance Series, Wind Ensemble, David Martins, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

## Tuesday, May 6

**Concert**, Faculty Performance Series, Performance Ensemble, featuring Prof. Rick Schilling, director, 7:30 p.m. Fisher Recital Hall. For information, call (978) 934-3850.

## Wednesday, May 7

**Concert**, Faculty Performance Series, Concert Band, Daniel Lutz, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

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## Did you know...

that 2.9 million visitors explored the UMass Lowell Web site in 2002?

## For Extra Credit...

How long do visitors typically surf the UML site?

The average visit length is 11 minutes and 16 seconds.



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